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Date of Deposit: September 5, 2003

Our Case No.: 11181/17

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Jeffrey C. Dawson et al.

Serial No.: Not yet assigned

Filing Date: Concurrently herewith

For: OIL AND GAS RECOVERY FROM
SUBTERRANEAN FORMATIONS

Examiner: Not yet assigned

Group Art Unit No.: Not yet assigned

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In compliance with the duty of disclosure under 37 C.F.R. § 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the documents listed below and on the attached Form PTO-1449 be considered by the Examiner and made of record. Copies of the listed documents required by 37 C.F.R. § 1.98(a)(2) are enclosed for the convenience of the Examiner.

The references now cited are the following:

US Patent Documents

DOCUMENT NUMBER <small>Number-Kind Code (if known)</small>	DATE	NAME
2,761,843	09/1956	Brown
4,336,145	06/1982	Briscoe
4,428,432	01/1984	Pabley
4,462,917	07/1984	Conway
4,477,360	10/1984	Almond
4,487,867	12/1984	Almond et al.
4,488,975	12/1984	Almond
4,505,826	03/1985	Horton
4,553,601	11/1985	Almond et al.
4,578,488	03/1986	Rummo et al.
4,604,217	08/1986	Lukach et al.
4,635,727	01/1987	Anderson et al.
4,799,550	01/1989	Harris et al.
4,977,962	12/1990	Himes et al.
5,036,136	07/1991	Peiffer
5,093,448	03/1992	Peiffer
5,152,906	10/1992	Aften et al.
5,305,832	04/1994	Gupta et al.
5,566,760	10/1996	Harris
5,614,475	03/1997	Moorhouse et al.
5,681,796	10/1997	Nimerick
5,681,797	10/1997	Lawate
5,697,444	12/1997	Moorhouse et al.
5,944,106	08/1999	Dalrymple
5,972,850	10/1999	Nimerick
6,017,855	01/2000	Dawson et al.
6,383,990 B1	05/2002	Dawson et al.

Foreign Patent Documents

DOCUMENT NUMBER <small>Number-Kind Code (if known)</small>	DATE	COUNTRY
WO 98/54272	12/1998	PCT

Non-Patent Literature Documents

Simha et al. "Compression of Flexible Chain Molecules in Solution" <i>Journal of Chemical Physics</i> (1960) 33:1791-1793.
Graessley, William W. "The Entanglement Concept in Polymer Rheology" <i>Advances in Polymer Science</i> (1974) 16:40-43.
DeGennes, P.D. "Dynamics of Entangled Polymer Solutions" <i>Macromolecules</i> (1976) 9(4):587-593.

Adam et al. "Dynamical Properties of Polymer Solutions in Good Solvent by Rayleigh Scattering Experiments" <i>Macromolecules</i> (1977) 10(6):1229-1237.
Ferry, John D. "Viscoelastic Properties of Polymers", September, 1980, pp. 212-213
Robinson, et al. "Viscosity-Molecular Weight Relationships, Intrinsic Chain Flexibility, and Dynamic Solution Properties of Guar Galactomannan" <i>Carbohydrate Research</i> (1982) 107:17-32.
API Rheological Characterization of Fracturing Fluids, Frac Project 84-45, December, 1984.
Almond, S.W. et al. "High-Efficiency Fracturing Fluids for Low-Temperature Reservoirs" <i>SPE</i> 13617, SPE 1985 California Regional Meeting, pp.275-283 (1985).
Menjivar, Juan A. "Use of Gelation Theory to Characterize Metal Cross-Linked Polymer Gels" <i>Advances in Chemistry Series</i> (1986) 213:209-226.
Zasadzinski, Joseph et al. Transmission Electron Microscopy of Gel Network Morphology Relating Network Microstructure to Mechanical Properties, <i>Macromolecules</i> , Vol. 19, No. 12, pp. 2960-2964, 1986.
Watts, Mike and Harms, Weldon, "Deep Hot Wells Can Be Effectively Fracture Stimulated", <i>Petroleum Engineer International</i> , March, 1991.
Hunter, Jeff and Walker, Jr., Ray N., "Cleaner Frac Fluids Improve Load Recovery and Tight-Gas Well Production", <i>World Oil</i> , October, 1991.
Broadhead, R.F. et al. "ABO Fluvial / Deltaic Sandstone" <i>Atlas of Major Rocky Mountain Gas Reservoirs</i> , New Mexico Bureau of Mines & Mineral Resources (1993).
Kesavan, S. "Rheology of Aqueous Gels" Dissertation, Princeton University, January 5, 1994.
Notebook No. SK1 issued to S. Kesavan on June 6, 1995.
BJ Services Company Treatment Report dated January 18, 1996.
BJ Services Company Treatment Report dated March 18, 1996.
BJ Services Company Treatment Report dated March 18, 1996, Bates No. BJS 132472.
BJ Services Company Treatment Report dated March 19, 1996.
BJ Services Company Treatment Report dated March 20, 1996.
BJ Services Company CMG, GW-38 Presentation prepared by Rhone Poulenc, Inc., dated September 30, 1996.
P.C. Harris, SPE and S.J. Heath, Rheological Properties of Low-Gel Loading Borate Frac Gels, Annual Technical Conference and Exhibition, p. 1-15 (Oct. 5-8, 1997).
Defendant Halliburton Energy Services, Inc.'s First Amended Answer, Defenses, and Counterclaims, March 19, 2001.
Plaintiff BJ Services' Reply to Halliburton Energy Services, Inc.'s First Amended Counterclaim, April 27, 2001.

In accordance with 37 C.F.R. § 1.97(g),(h), this Information Disclosure Statement is not to be construed as a representation that a search has been made and is not to be construed to be an admission that the information cited is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

This Information Disclosure Statement is being filed prior to the receipt of the first Official Action reflecting an examination on the merits and hence is believed to be timely filed in accordance with 37 C.F.R. § 1.97(b). No fees are believed to be due in connection with filing of this Information Disclosure Statement, however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be deemed necessary for any


reason relating to these material, the Commissioner is hereby authorized to deduct said fees from Brinks Hofer Gilson & Lione Deposit Account No. 23-1925. A duplicate copy of this document is enclosed.

This application is a continuation application of U.S. Patent Application Serial No. 09/784,695, filed February 15, 2001, which is a continuation of U.S. Patent Application Serial No. 09/454,687, filed December 3, 1999, now issued as U.S. Patent No. 6,383,990 B1, which is a continuation of U.S. Patent Application Serial No. 09/191,336, filed November 13, 1998, now issued as U.S. Patent No. 6,017,855, which is a continuation of U.S. Patent Application Serial No. 08/864,007, filed May 27, 1997, now abandoned, and is relied upon for an earlier filing dated under 35 U.S.C. § 120. In accordance with Rule 37 C.F.R. § 1.98(d) only copies of documents not previously cited and submitted to the Patent and Trademark Office in the prior applications are enclosed for the convenience of the Examiner.

Applicant(s) respectfully request that the listed documents be made of record in the present case.

Respectfully submitted,

4/5/03


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FORM PTO-1449	SERIAL NO. Not yet assigned	CASE NO. 11181/17
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT	FILING DATE September 5, 2003	GROUP ART UNIT Not yet assigned
(use several sheets if necessary)		APPLICANT(S): Jeffrey C. Dawson et al.

REFERENCE DESIGNATION
U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER Number-Kind Code (if known)	DATE	NAME	CLASS/ SUBCLASS	FILING DATE
	A1	2,761,843	09/1956	Brown		
	A2	4,336,145	06/1982	Briscoe		
	A3	4,428,432	01/1984	Pabley		
	A4	4,462,917	07/1984	Conway		
	A5	4,477,360	10/1984	Almond		
	A6	4,487,867	12/1984	Almond et al.		
	A7	4,488,975	12/1984	Almond		
	A8	4,505,826	03/1985	Horton		
	A9	4,553,601	11/1985	Almond et al.		
	A10	4,578,488	03/1986	Rummo et al.		
	A11	4,604,217	08/1986	Lukach et al.		
	A12	4,635,727	01/1987	Anderson et al.		
	A13	4,799,550	01/1989	Harris et al.		
	A14	4,977,962	12/1990	Himes et al.		
	A15	5,036,136	07/1991	Peiffer		
	A16	5,093,448	03/1992	Peiffer		
	A17	5,152,906	10/1992	Aften et al.		
	A18	5,305,832	04/1994	Gupta et al.		
	A19	5,566,760	10/1996	Harris		
	A20	5,614,475	03/1997	Moorhouse et al.		
	A21	5,681,796	10/1997	Nimerick		
	A22	5,681,797	10/1997	Lawate		
	A23	5,697,444	12/1997	Moorhouse et al.		
	A24	5,944,106	08/1999	Dalrymple		
	A25	5,972,850	10/1999	Nimerick		
	A26	6,017,855	01/2000	Dawson et al.		
	A27	6,383,990 B1	05/2002	Dawson et al.		

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER Number-Kind Code (if known)	DATE	COUNTRY	CLASS/ SUBCLASS	TRANSLATION YES OR NO
	A28	WO 98/54272	12/1998	PCT		

OTHER ART - NON PATENT LITERATURE DOCUMENTS

EXAMINER INITIAL		(Include name of author, title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published.
	A29	Simha et al. "Compression of Flexible Chain Molecules in Solution" <i>Journal of Chemical Physics</i> (1960) 33:1791-1793.
	A30	Graessley, William W. "The Entanglement Concept in Polymer Rheology" <i>Advances in Polymer Science</i> (1974) 16:40-43.

EXAMINER	DATE CONSIDERED
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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	A31	DeGennes, P.D. "Dynamics of Entangled Polymer Solutions" <i>Macromolecules</i> (1976) 9(4):587-593.
	A32	Adam et al. "Dynamical Properties of Polymer Solutions in Good Solvent by Rayleigh Scattering Experiments" <i>Macromolecules</i> (1977) 10(6):1229-1237.
	A33	Ferry, John D. "Viscoelastic Properties of Polymers", September, 1980, pp. 212-213
	A34	Robinson, et al. "Viscosity-Molecular Weight Relationships, Intrinsic Chain Flexibility, and Dynamic Solution Properties of Guar Galactomannan" <i>Carbohydrate Research</i> (1982) 107:17-32.
	A35	API Rheological Characterization of Fracturing Fluids, Frac Project 84-45, December, 1984.
	A36	Almond, S.W. et al. "High-Efficiency Fracturing Fluids for Low-Temperature Reservoirs" <i>SPE 13617</i> , SPE 1985 California Regional Meeting, pp.275-283 (1985).
	A37	Menjivar, Juan A. "Use of Gelation Theory to Characterize Metal Cross-Linked Polymer Gels" <i>Advances in Chemistry Series</i> (1986) 213:209-226.
	A38	Zasadzinski, Joseph et al. Transmission Electron Microscopy of Gel Network Morphology Relating Network Microstructure to Mechanical Properties, <i>Macromolecules</i> , Vol. 19, No. 12, pp. 2960-2964, 1986.
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	A40	Hunter, Jeff and Walker, Jr., Ray N., "Cleaner Frac Fluids Improve Load Recovery and Tight-Gas Well Production", <i>World Oil</i> , October, 1991.
	A41	Broadhead, R.F. et al. "ABO Fluvial / Deltaic Sandstone" <i>Atlas of Major Rocky Mountain Gas Reservoirs</i> , New Mexico Bureau of Mines & Mineral Resources (1993).
	A42	Kesavan, S. "Rheology of Aqueous Gels" Dissertation, Princeton University, January 5, 1994.
	A43	Notebook No. SK1 issued to S. Kesavan on June 6, 1995.
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	A45	BJ Services Company Treatment Report dated March 18, 1996.
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	A48	BJ Services Company Treatment Report dated March 20, 1996.
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	A50	P.C. Harris, SPE and S.J. Heath, Rheological Properties of Low-Gel Loading Borate Frac Gels, Annual Technical Conference and Exhibition, p. 1-15 (Oct. 5-8, 1997).
	A51	Defendant Halliburton Energy Services, Inc.'s First Amended Answer, Defenses, and Counterclaims, March 19, 2001.
	A52	Plaintiff BJ Services' Reply to Halliburton Energy Services, Inc.'s First Amended Counterclaim, April 27, 2001.

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